

What is claimed is:

1. A retrievable blood clot filter actuatable between a collapsed position and an expanded position within a blood vessel, comprising:

an apical head defining a filter longitudinal axis;

a plurality of elongated filter legs each having a joined end section and a free end section, each filter leg including a support member having a first end coupled to the apical head, and a second end configured to expand outwardly away from the filter longitudinal axis and being coupled to an anchoring member configured to releasably secure the blood clot filter device to the inner wall of the blood vessel; and

a plurality of filter tubes each having a first end, a second end, and an inner lumen configured to slidably receive the support members therein, the first end of each filter tube being joined together at a hub.

2. The retrievable blood clot filter device of claim 1, wherein said plurality of filter tubes are formed of one or more segments of tubing or sheathing.

3. The retrievable blood clot filter device of claim 1, wherein said plurality of filter tubes are formed of coiled tubing.

4. The retrievable blood clot filter device of claim 1, further comprising a landing pad coupled to the second end of each filter tube.

5. The retrievable blood clot filter device of claim 1, wherein the anchoring member includes a bending region.

6. The retrievable blood clot filter device of claim 1, wherein the hub is an annular-shaped hub.

7. The retrieval blood clot filter device of claim 6, wherein the annular-shaped hub includes one or more internal notches or slots formed therein.

8. The retrievable blood clot filter device of claim 1, further comprising retrieval means for retrieving the blood clot filter device within the body.

9. The retrievable blood clot filter device of claim 8, wherein said retrieval means includes a retrieval apparatus configured to retrieve the blood clot filter device using a jugular approach.

10. A retrievable blood clot filter actuatable between a collapsed position and an expanded position within a blood vessel, comprising:

an apical head defining a filter longitudinal axis;

a plurality of elongated filter legs each having a joined end section and a free end section, each filter leg including a support member having a first end coupled to the apical head, and a second end configured to expand outwardly away from the filter

longitudinal axis and being coupled to a bendable anchoring member configured to releasably secure the blood clot filter device to the inner wall of the blood vessel; and

a plurality of filter tubes each having a first end, a second end, and an inner lumen configured to slidably receive the support members therein, the filter tubes being coupled at their first end to an annular-shaped hub, and at their second end to a landing pad.

11. The retrievable blood clot filter device of claim 10, wherein said plurality of filter tubes are formed of one or more segments of tubing or sheathing.

12. The retrievable blood clot filter device of claim 10, wherein said plurality of filter tubes are formed of coiled tubing.

13. The retrieval blood clot filter device of claim 10, wherein the annular-shaped hub includes one or more internal notches or slots formed therein.

14. The retrievable blood clot filter device of claim 10, further comprising retrieval means for retrieving the blood clot filter device within the body.

15. The retrievable blood clot filter device of claim 14, wherein said retrieval means includes a retrieval apparatus configured to retrieve the blood clot filter device using a jugular approach.

16. A filter system, comprising:

a retrievable blood clot filter device including an apical head, and a plurality of elongated filter legs each having a joined end section and a free end section, each filter leg including a support member having a first end coupled to the apical head, and a second end coupled to an anchoring member configured to releasably secure the blood clot filter device to the inner wall of a blood vessel;

a plurality of filter tubes each having a first end, a second end, and an inner lumen configured to slidably receive the support members therein, the first end of each filter tube being coupled to a hub; and

a retrieval apparatus for retrieving or repositioning the blood clot filter device within the blood vessel, the retrieval apparatus including an inner member configured to grasp the apical head, a middle tubular member configured to engage the hub, and an outer sheath for encapsulating the blood clot filter device.

17. The filter system of claim 16, wherein said plurality of filter tubes are formed of one or more segments of tubing or sheathing.

18. The filter system of claim 16, wherein said plurality of filter tubes are formed of coiled tubing.

19. The filter system of claim 16, further comprising a landing pad coupled to the second end of each filter tube.

20. The filter system of claim 16, wherein the anchoring member includes a bending region.

21. The filter system of claim 16, wherein the hub is an annular-shaped hub.

22. The filter system of claim 21, wherein the annular-shaped hub includes one or more internal notches or slots formed therein.

23. The filter system of claim 22, wherein said middle tubular member includes one or more fins insertable through said one or more notches or slots.

24. The filter system of claim 16, wherein said inner member comprises a braided tubular member.

25. The retrievable blood clot filter device of claim 16, wherein the retrieval apparatus is configured to retrieve the blood clot filter device using a jugular approach.

26. The retrievable blood clot filter device of claim 16, wherein the retrieval apparatus is configured to retrieve the blood clot filter device using a femoral approach.

27. A method of retrieving a blood clot filter device implanted within a blood vessel, the blood clot filter device including an apical head, and a plurality of elongated

filter legs each including a support member having a first end coupled to the apical head and a second end coupled to a bendable anchoring member, the method comprising the steps of:

inserting a retrieval apparatus into the body and advancing the retrieval apparatus intravenously to a location adjacent the implanted blood clot filter device;

advancing an inner member of the retrieval apparatus distally within the blood vessel, causing the inner member to grasp the apical head of the blood clot filter device;

advancing a middle tubular member of the retrieval apparatus distally within the blood vessel, causing the middle tubular member to contact a hub operatively coupled to a number of filter tubes slidably disposed about the support members;

retracing the bendable anchoring members into an inner lumen of the filter tubes;
and

collapsing the blood clot filter device at least in part within an outer sheath of the retrieval apparatus.

28. The method of claim 27, wherein the step of inserting the retrieval apparatus into the body includes the step of percutaneously inserting the retrieval apparatus into the jugular vein.

29. The method of claim 27, wherein the step of inserting the retrieval apparatus into the body includes the step of percutaneously inserting the retrieval apparatus into a femoral vein.

30. The method of claim 27, wherein the step of retracting the bendable anchoring members into an inner lumen of the filter tubes comprises withdrawing the inner member proximally while holding the middle tubular member stationary against the hub.

31. The method of claim 27, wherein the step of retracting the bendable anchoring members into an inner lumen of the filter tubes comprises advancing the inner member distally while holding the middle tubular member stationary against the hub.

32. The method of claim 31, wherein the inner member includes one or more fins insertable within one or more notches or slots formed within the hub, and wherein the step of holding the middle tubular member stationary against the hub comprises inserting the one or more fins through the one or more notches or slots, and rotating the middle tubular member within the hub until the one or more fins are misaligned.